

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for backside particle removal, comprising the operations of:

~~defining~~ identifying ~~cleaning~~ contact sites on a backside of a wafer, wherein the contact ~~cleaning~~ sites are portions of the backside of the wafer that are configured to physically contact a surface of a chuck having a predefined shape, the physical contact occurring when the backside of the wafer is placed in physical contact with the predefined shape of the surface during a semiconductor fabrication process; and

cleaning the ~~cleaning~~ contact sites on the backside of the wafer, the cleaning being configured to omit cleaning of the ~~omitting~~ portions of the backside of the wafer not having physical contact with the predefined shape of the surface of the chuck during the semiconductor fabrication process.

2. (Currently Amended) A method as recited in claim 1, further comprising the operation of aligning the ~~cleaning~~ contact sites with the predefined shape of the surface ~~contact regions~~ of the chuck after the cleaning of the ~~cleaning~~ contact sites in preparation for the semiconductor fabrication process, wherein the predefined shape of the surface ~~contact regions~~ ~~are regions of the chuck that physically~~ contacts ~~contact~~ the backside of the wafer during the semiconductor fabrication process.

3. (Previously presented) A method as recited in claim 2, wherein the chuck includes a chuck pin array, wherein the contact regions correspond to pin positions of the chuck pin array.

4. (Previously presented) A method as recited in claim 2, wherein the chuck is a vacuum chuck, and the contact regions correspond to wafer contact areas on the vacuum chuck.

5. (Currently Amended) A method as recited in claim 1, further comprising the operation of pre-programming the contact ~~regions~~ sites into a cleaning controller.

6. (Currently Amended) A method as recited in claim 1, wherein a laser is utilized to clean the contact sites on the backside of the wafer.

7. (Currently Amended) A method as recited in claim 1, wherein a megasonic wand is utilized to clean the contact sites on the backside of the wafer.

8. (Currently Amended) A system for backside particle removal, comprising:
a cleaning controller that identifies ~~defines cleaning~~ contact sites on a backside of a wafer, wherein the ~~cleaning~~ contact sites are portions of the backside of the wafer that are configured to physically contact a surface of a chuck having a predefined shape, the physical

contact occurring when the backside of the wafer is placed in physical contact with the predefined shape of the surface during a semiconductor fabrication process; and

~~an~~ a site specific cleaning apparatus configured to clean the ~~cleaning contact~~ sites on the backside of the wafer defined by the cleaning controller, where the ~~clean~~ site specific cleaning apparatus omits cleaning portions of the backside of the wafer not having physical contact with the predefined shape of the surface of the chuck during the semiconductor fabrication process.

9. (Currently Amended) A system as recited in claim 8, further comprising a wafer aligning apparatus that aligns the ~~cleaning contact~~ sites with the predefined shape of the surface ~~contact regions~~ of the chuck, wherein the ~~contact regions are regions~~ predefined shape of the surface of the chuck ~~that~~ physically ~~contact~~ contacts the backside of the wafer during the semiconductor fabrication process.

10. (Currently Amended) A system as recited in claim 9, wherein the chuck includes a pin array that supports the wafer, and wherein the contact ~~regions~~ sites correspond to pin positions of the pin array.

11. (Currently Amended) A system as recited in claim 9, wherein the chuck includes grooves for applying a vacuum to the backside of the wafer, and wherein the contact ~~regions~~ sites correspond to areas of the chuck outside the grooves.

12. (Currently Amended) A system as recited in claim 8, wherein the site specific cleaning apparatus is a laser.

13. (Currently Amended) A system as recited in claim 8, wherein the site specific cleaning apparatus is a megasonic wand.

14. (Currently Amended) A system as recited in claim 8, wherein the site specific cleaning apparatus is integrated with a lithographic stepper apparatus.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Currently Amended) A system for backside particle removal, comprising:

a cleaning controller that ~~defines cleaning~~ identifies contact sites on a backside of a wafer, wherein the ~~cleaning contact~~ sites are portions of the backside of the wafer that are configured to physically contact a surface of a chuck having a predefined shape, the physical contact occurring when the backside of the wafer is placed in physical contact with the predefined shape of the surface during a semiconductor fabrication process; and

a megasonic wand to clean the ~~cleaning~~ contact sites on the backside of the wafer defined by the cleaning controller, wherein the ~~clean~~ megasonic wand omits cleaning portions of the backside of the wafer not having physical contact with the predefined shape of the surface of the chuck during the semiconductor fabrication process.

22. (Currently Amended) A system for backside particle removal, comprising:

a cleaning controller that ~~defines cleaning~~ identifies contact sites on a backside of a wafer, wherein the ~~cleaning~~ contact sites are portions of the backside of the wafer that are configured to physically contact a surface of a chuck having a predefined shape, the physical contact occurring when the backside of the wafer is placed in physical contact with the predefined shape of the surface during a semiconductor fabrication process; and

a laser to clean the ~~cleaning~~ contact sites on the backside of the wafer defined by the cleaning controller, wherein the ~~clean~~ laser omits cleaning portions of the backside of the wafer not having physical contact with the predefined shape of the surface of the chuck during the semiconductor fabrication process.

23. (Canceled)